

ABSTRACT OF THE DISCLOSURE

The invention relates to a A method for welding two rails ~~(8, 10, 14)~~ of a track using a welding unit ~~(1)~~ of a welding machine ~~(20)~~. According to the method, moves and welds together two rails ~~(8,10,14)~~ each caught by a pair of clamping jaws ~~(6)~~ of the welding unit ~~(1)~~ ~~are moved and welded together while~~ subjecting them to crusher cylinders ~~(3)~~ in the longitudinal direction of the rails. A rail anchor ~~(16)~~ is produced in a so-called terminal welding step in a working direction ~~(11)~~ upstream of the machine ~~(20)~~ by linking a section of the rail ~~(14)~~ with ties ~~(15)~~ in a non-positive manner. If the actual rail temperature differs from the local neutral temperature, tensions are passed into the rails to be welded together. The inventive method is characterized in that in In parallel to the welding of a - with respect to the working direction of the welding machine ~~(20)~~- first rail with a second rail ~~(8,10)~~, a pressure force is passed into a front rail end ~~(7)~~ of the second rail ~~(10)~~ in the direction of the first rail ~~(8)~~ by ~~means of~~ a rail pressing device ~~(19)~~ in order to generate a compressive strain, the rail pressing device ~~(19)~~ being supported on a rail anchor ~~(16)~~ of a third rail ~~(14)~~ subsequent to the second rail ~~(10)~~. The first rail ~~(8)~~ is braced with the ties ~~(15)~~ once the welding step is terminated.